

LAKE: LONG P (VLMP 31 )  
TOWN: PARSONSFIELD  
COUNTY: YORK

MIDAS: 9701  
TRUE BASIN: 1  
SAMPLE STATION: 1

#### WHOLE LAKE INFORMATION

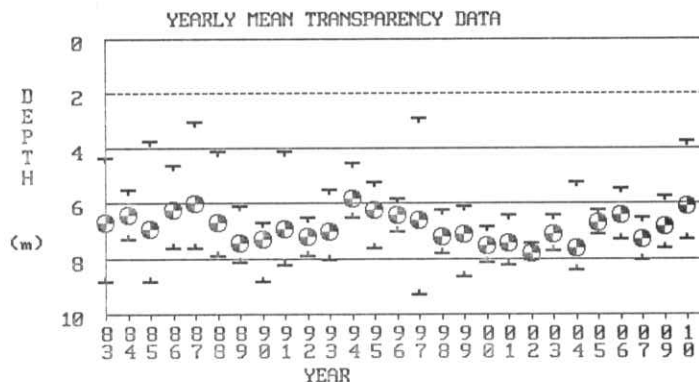
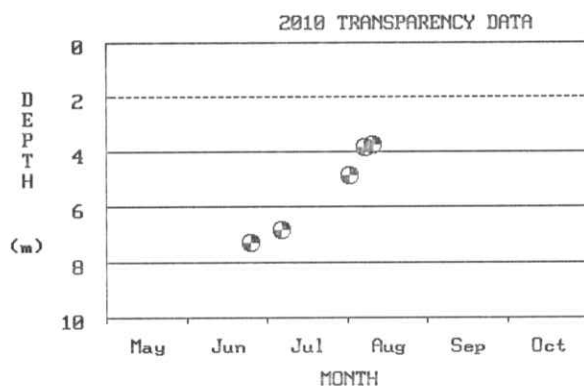
MAX. DEPTH: 10 m. (33 ft.)  
MEAN DEPTH: 5 m. (18 ft.)  
DELORME ATLAS #: 04  
USGS QUAD: CORNISH  
IFW REGION A: Sebago Lake (Gray)  
IFW FISH. MANAGMENT: Warmwater & Coldwater

#### TRUE BASIN CHARACTERISTICS

SURFACE AREA: 105.0 ha. (259.5 a.)  
FLUSHING RATE: 0.40 flushes/yr.  
VOLUME: 6209591.5 cu. m. (5037 ac.-ft.)  
DIRECT DRAINAGE AREA: 3.33 sq. km. (1.29 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. LONG P has 1 True Basin(s).

#### SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

#### SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[\* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS			
	(SPU)		(mg/l)	(uS /cm)	CORE	GRAB	GRAB	GRAB								C	G	SEC	CHL
1983	13	7.10	9.0	-	10	-	-	-	4.3	6.7	8.8	6	5.6	5.6	5.6	-	-	34	-
1984	-	-	-	-	-	-	-	-	5.5	6.4	7.3	5	-	-	-	-	-	36	-
1985	-	-	-	-	-	-	-	-	3.7	6.9	8.8	5	-	-	-	-	-	32	-
1986	11	6.90	9.0	26	7	-	-	-	4.6	6.2	7.6	6	-	-	-	-	-	37	-
1987	-	-	-	-	-	-	-	-	3.0	6.0	7.6	6	-	-	-	-	-	39	-
1988	-	-	-	-	-	-	-	-	4.1	6.7	7.9	5	-	-	-	-	-	34	-
1989	-	-	-	-	-	-	-	-	6.1	7.4	8.1	4	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	6.7	7.3	8.8	5	-	-	-	-	-	30	-
1991	5	7.29	19.0	32	11	-	-	-	4.1	6.9	8.2	5	-	-	-	-	-	32	-
1992	-	-	-	-	-	-	-	-	6.5	7.2	7.9	5	-	-	-	-	-	30	-
1993	-	-	-	-	-	-	-	-	5.5	7.0	8.0	4	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	4.5	5.8	6.5	3	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	5.2	6.2	7.6	2	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	5.8	6.4	7.0	3	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	2.9	6.6	9.3	5	-	-	-	-	-	34	-

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# SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

YEAR	MEAN COLOR (SPU)	MEAN PH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
					EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	EPI PHOS			
					CORE	GRAB	GRAB	GRAB								C	G	SEC	CHL
1998	-	-	-	-	-	-	-	-	6.2	7.2	7.8	3	-	-	-	-	-	-	-
1999	3	-	8.1	41	8	-	12	-	6.1	7.1	8.6	4	2.4	4.5	6.6	-	-	-	-
2000	-	-	-	-	-	-	-	-	6.8	7.5	8.1	3	-	-	-	-	-	-	-
2001	12	7.11	-	-	7	-	17	-	6.4	7.4	8.2	3	2.8	2.8	2.8	-	-	-	-
2002	-	-	-	-	-	-	-	-	7.4	7.8	8.0	3	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	6.4	7.1	7.7	4	-	-	-	-	-	-	-
2004	6	7.24	10.4	43	7	-	26	-	5.2	7.6	8.4	4	2.8	2.9	2.9	-	-	-	-
2005	-	-	-	-	-	-	-	-	6.2	6.7	7.1	3	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	5.4	6.4	7.3	3	-	-	-	-	-	-	-
2007	9	7.30	7.3	39	8	-	32	-	6.5	7.3	8.0	2	2.5	2.5	2.5	-	-	-	-
2009	-	-	-	-	-	-	-	-	5.7	6.8	7.6	3	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	3.7	6.1	7.3	3	-	-	-	-	-	-	-
SUMMARY:	8	7.13	10.5	36	8	-	22	-	2.9	6.8	9.3	27	2.4	3.7	6.6	-	-	34	-

## LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH m	SAMPLE DATE											
	09/10/86		09/04/91		08/25/99		08/27/01		08/16/04		08/16/07	
	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	19.9	9.3	22.0	9.0	24.3	9.0	24.2	9.1	23.5	8.3	24.2	9.2
1.0	19.5	9.2	22.0	8.8	23.5	9.1	24.1	9.1	23.5	8.3	24.1	9.2
2.0	19.5	9.2	22.0	8.9	23.3	9.1	24.0	9.1	23.5	8.4	24.1	9.3
3.0	19.5	9.2	21.9	8.9	23.1	9.1	23.9	9.2	23.5	8.3	24.0	9.3
4.0	19.5	9.2	21.9	8.8	23.0	9.1	23.9	9.2	23.5	8.3	24.0	9.2
5.0	19.2	9.1	21.8	8.8	22.9	9.1	23.8	9.1	23.5	8.3	23.9	9.2
6.0	19.2	9.1	21.7	8.8	22.6	9.1	23.7	9.1	23.3	8.3	21.7	12.0
7.0	19.1	9.0	21.6	8.6	21.9	8.3	19.8	11.9	21.7	10.2	17.6	11.7
8.0	19.0	8.7	20.9	5.1	18.9	4.3	16.4	6.3	18.1	10.6	14.3	7.2
9.0	17.8	5.5	18.3	0.4	16.9	0.8	13.9	0.6	15.9	2.0	12.4	1.3
10.0	-	-	17.2	0.2	-	-	-	-	14.6	0.6	11.9	0.5

## **WATER QUALITY SUMMARY**

### **LONG POND, Parsonsfield**

Midas: 9701, Basin: 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algae blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Long Pond have been collected since 1983. During this period, 6 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Long Pond is considered to be above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algae blooms on Long Pond is low.

Water Quality Measures: Long Pond is a non-colored lake (average color 8 SPU) with an average SDT of 6.9m (22.6ft). The range of water column TP for Long Pond is 7 to 11 parts per billion (ppb) with an average of 8 ppb, while Chla ranges from 2.4 to 6.6 ppb with an average of 3.9 ppb. Recent dissolved oxygen (DO) profiles show moderate DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low to moderate.

Long Pond (Parsonsfield) is managed by Maine Department of Inland Fisheries and Wildlife as a mixed warm-cold-water fishery. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

In fall of 2006, Long Pond became quite green during and after fall turnover. No SDT was available to document whether bloom conditions were meant, but the pond certainly had an uncharacteristic green color. Data collected the next few years will be closely watched to see if a trend is developing or if this was a one time event.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: long9701, Revised: 03/07, By: dbh updated by jp